

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:
Cathal McPeake, et al

Serial No.: 10/708,294

Filed: February 23, 2004

For: System and Methodology for Name
Searches

Examiner: Pannala, Sathyanaraya R

Art Unit: 2164

APPEAL BRIEF

Mail Stop Appeal
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

BRIEF ON BEHALF OF CATHAL MCPEAKE, ET AL

This is an appeal from the Final Rejection mailed October 12, 2007, in which currently-pending claims 1, 3-5, 7-25, 27-29, 31-60 and 62-67 stand finally rejected. Appellant filed a Notice of Appeal on January 22, 2008. This brief is submitted electronically in support of Appellant's appeal.

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1. REAL PARTY IN INTEREST

The real party in interest is assignee Sybase, Inc. located at One Sybase Drive, Dublin, CA 94568.

2. RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences known to Appellant, the Appellant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

3. STATUS OF CLAIMS

The status of all claims in the proceeding is as follows:

Rejected: Claims 1, 3-5, 7-25, 27-29, 31-60 and 62-67

Allowed or Confirmed: None

Withdrawn: None

Objected to: None

Canceled: 2, 6, 26, 30, 61

Identification of claims that are being appealed: 1, 3-5, 7-25, 27-29, 31-60 and 62-67

An appendix setting forth the claims involved in the appeal is included as Section 8 of this brief.

4. STATUS OF AMENDMENTS

Two Amendments have been filed in this case. Appellant filed an Amendment on April 30, 2007 in response to a non-final Office Action dated December 29, 2006 which indicated that dependent claims 6-7, 30-31 and 61-62 included allowable subject matter and would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. In the Amendment filed by Appellant on April 30, 2007, Appellant amended independent claims 1, 25 and 47 to include the

limitations of dependent claims 6, 30 and 61, so as to incorporate the subject matter indicated by the Examiner as allowable into Appellant's independent claims and clearly distinguish Appellant's claimed invention from the art of record. In response, the Examiner issued a second non-final Office Action dated June 28, 2007 rejecting Appellant's amended claims. Appellant filed an Amendment on September 28, 2007 in response to the second non-final Office Action. In response to the Examiner's Final Rejection dated October 12, 2007 (hereinafter "Final Rejection") finally rejecting Appellant's claims, Appellant filed a Notice of Appeal. Appellant has chosen to forego filing an Amendment After Final as it is believed that further amendments to the claims are not warranted in view of the art. Accordingly, no amendments have been entered in this case after the date of the Final Rejection.

5. SUMMARY OF CLAIMED SUBJECT MATTER

As to Appellant's **First Ground** for appeal, Appellant asserts that the art rejection of Appellant's claims 1, 3-5, 7-13, 15-25, 27-29, 31-37 and 39-46 under 35 USC Section 102(e) relying on U.S. Patent 6,963,871 to Hermansen et al (hereinafter "Hermansen") fails to teach or suggest all of the claim limitations of Appellant's rejected claims 1, 3-5, 7-13, 15-25, 27-29, 31-37 and 39-46, where the claimed invention is set forth in the embodiment in **independent claim 1**: A method for determining whether a particular name matches any names on a list of names (Appellant's specification paragraph [0021], paragraph [0052]; see generally Figs. 4A-4C), said particular name comprising one or more words (Appellant's specification paragraph [0072] (each name broken into words and code generated for each word of name), paragraphs [0107]-[0108]; see also Fig. 4B at 411-413), the method comprising: generating codes characterizing the particular name by generating a code for each word of the particular name (Appellant's specification paragraph [0021], paragraph [0067], paragraph [0072] (each name broken into words and code generated for each word of name), paragraphs [0107]-[0108]; Fig. 4A at 410; see also Fig. 4B at 411-413), that is based at least in part on phonetic sounds of the word and on whether characters of the word match a pattern occurring in a proper name in a given natural language name (Appellant's specification paragraph [0021], paragraph [0059],

paragraph [0073], paragraphs [0077]-[0080]; also see generally, paragraphs [0085]-[0103]), deriving an initial set of any matching names by comparing the codes of the particular name against corresponding codes for the list of names (Appellant's specification paragraph [0021], paragraph [0060], paragraph [0067], paragraph [0073] (codes generated for words of incoming name compared to stored list of codes previously generated for suspects on suspect list); Fig. 4A at 410, Fig. 4B at 414), deriving a final set of any matching names by comparing words of the particular name against words of names in the initial set (Appellant's specification paragraph [0021], paragraph [0061], paragraphs [0068]-[0069]; Fig. 4A at 420, Fig. 4C at 421-425); wherein deriving the final set includes calculating a score based upon combinations of words of the particular name and words of names in the initial set (Appellant's specification paragraph [0106], paragraph [0108] (score calculated base on pairing each word of the incoming name with each of the words of candidate name), paragraphs [0109]-[0112]; Fig. 4A at 420, Fig. 4C at 421-425), and wherein calculating a score is based, at least in part, upon number of matching characters in respective words (Appellant's specification paragraph [0121], paragraph [0125] (score calculated by examining words letter by letter, instances with same letter in same position generates higher score), paragraph [0128] (value assigned base on number of matching characters and total number of characters in words); see also paragraphs [0126]-[0127] and [0122]), and displaying any matching names in the final set having a score greater than an established threshold (Appellant's specification paragraph [0021], paragraph [0023], paragraph [0061], paragraph [0130]; Fig. 4A at 420-435; Fig. 4C at 425).

For Appellant's argument under the **First Ground** for appeal, Appellant additionally argues that the art rejection under 35 USC Section 102(e) relying on Hermansen fails to teach or suggest all of the claim limitations of Appellant's rejected claims, where the claimed invention is set forth in the embodiment in **independent claim 25**: A system for determining whether a particular name matches any names on a list of names (Appellant's specification paragraph [0022], paragraph [0052]; see generally Fig. 3 and Figs. 4A-4C), said particular name comprising one or more words (Appellant's specification paragraph [0072] (each name broken into words and code generated for each word of name), paragraphs [0107]-[0108]; see also Fig. 4B at 411-413), the system

comprising: a computer having a processor and memory (Appellant's specification, paragraphs [0041]-[0045], paragraph [0051]; see generally Fig. 1); a code module for generating codes characterizing the particular name by generating a code for each word of the particular name (Appellant's specification paragraph [0022], paragraph [0067], paragraph [0072] (each name broken into words and code generated for each word of name), paragraphs [0107]-[0108]; Fig. 4A at 410; see also Fig. 4B at 411-413), that is based at least in part on phonetic sounds of the word and on whether characters of the word match a pattern occurring in a proper name in a given natural language (Appellant's specification paragraph [0021], paragraph [0059], paragraph [0073], paragraphs [0077]-[0080]; also see generally, paragraphs [0085]-[0103]), a pre-match module for deriving an initial set of any matching names by comparing the codes of the particular name against corresponding codes for the list of names (Appellant's specification paragraph [0022], paragraph [0060], paragraph [0067], paragraph [0073] (codes generated for words of incoming name compared to stored list of codes previously generated for suspects on suspect list); Fig. 3 at 320 (prematch module); Fig. 4A at 410, Fig. 4B at 414), a score module for deriving a final set of any matching names by comparing words of the particular name against words of names in the initial set (Appellant's specification paragraph [0022], paragraph [0061], paragraphs [0068]-[0069]; Fig. 3 at 330 (score module); Fig. 4A at 420, Fig. 4C at 421-425); wherein said score module calculates a score based upon combinations of words of the particular name and words of names in the initial set (Appellant's specification paragraph [0106], paragraph [0108] (score calculated base on pairing each word of the incoming name with each of the words of candidate name), paragraphs [0109]-[0112]; Fig. 4A at 420, Fig. 4C at 421-425); and wherein said score module calculates a score based, at least in part, upon number of matching characters in respective words (Appellant's specification paragraph [0121], paragraph [0125] (score calculated by examining words letter by letter, instances with same letter in same position generates higher score), paragraph [0128] (value assigned base on number of matching characters and total number of characters in words); see also paragraphs [0126]-[0127] and [0122]), and a module for displaying any matching names in the final set having a score above an established threshold (Appellant's specification paragraph [0023], paragraph [0061], paragraph [0130]; Fig. 4A at 420-435; Fig. 4C at

425).

For Appellant's argument under the **First Ground** for appeal, Appellant additionally argues based on **dependent claims 4 and 28** which include limitations of determining whether a character at a certain position in a first word is at the certain position in a second word in calculating a score (Appellant's specification, paragraph [0125] (same character at same position generates higher score), paragraph [0128] (value assigned base on number of matching characters and total number of characters in words)). For Appellant's argument under the **First Ground** for appeal, Appellant additionally argues based on **dependent claims 5 and 29** which include limitations of determining whether a character at the certain position in the first word is at a different position in the second word (Appellant's specification, paragraph [0126] (letters in another nearby position contribute to score), paragraph [0127], paragraph [0128]).

As to Appellant's **Second Ground** for appeal, Appellant asserts that the art rejection under **Section 103(a)** relying on the combination of Hermansen (above) and U.S. Published Application 2006/0095368 of Stretton ("Stretton") fails to teach or suggest all of the claim limitations of Appellant's rejected claims 14, 38, 47-60, 62-67, where the claimed invention is set forth in the embodiment in **independent claims 1 and 25** (the mapping of which is shown above under Appellant's **First Ground** for appeal, and which hereby is incorporated by reference). For Appellant's argument under the **Second Ground** for appeal, Appellant additionally argues based on **dependent claims 14 and 38** which includes the limitations of comparing a name to a list of names comprising a watch list (Appellant's specification paragraph [0052] (check for names that may match names on a particular suspect (or watch) list), paragraph [0067], paragraph [0073]).

As to Appellant's **Second Ground** for appeal, Appellant asserts that the art rejection under **Section 103(a)** relying on the combination of Hermansen (above) and U.S. Published Application 2006/0095368 of Stretton ("Stretton") fails to teach or suggest all of the claim limitations of Appellant's rejected claims 14, 38, 47-60, 62-67, where the claimed invention is set forth in the embodiment in **independent claim 47: A method for assisting a user in determining whether a particular name matches any suspect name on a suspect list** (Appellant's specification paragraph [0023], paragraph [0052] (check for names that may match names on a particular suspect (or watch) list); see

generally Figs. 4A-4C), said particular name having one or more words (Appellant's specification paragraph [0072] (each name broken into words and code generated for each word of name), paragraphs [0107]-[0108]; see also Fig. 4B at 411-413), the method comprising: generating a code for each word of said particular name (Appellant's specification paragraph [0023], paragraph [0067], paragraph [0072] (each name broken into words and code generated for each word of name), paragraphs [0107]-[0108]; Fig. 4A at 410; see also Fig. 4B at 411-413), based at least in part on phonetic sound and on patterns of characters occurring in names in natural languages (Appellant's specification paragraph [0023], paragraph [0059], paragraph [0073], paragraphs [0077]-[0080]; also see generally, paragraphs [0085]-[0103]), identifying a set of potentially matching names by comparing codes generated for said particular name with codes generated for suspect names on the suspect list (Appellant's specification paragraph [0023], paragraph [0060], paragraph [0067], paragraph [0073] (codes generated for words of incoming name compared to stored list of codes previously generated for suspects on suspect list); Fig. 4A at 410, Fig. 4B at 414), for each suspect name in the set of potentially matching names, calculating a score based, at least in part, upon correlation of characters between words of said particular name and words of the suspect name (Appellant's specification paragraph [0023], paragraph [0061], paragraphs [0068]-[0069], paragraph [0106], paragraph [0108]; Fig. 4A at 420, Fig. 4C at 421-425); wherein calculation of the score is based, at least in part, upon number of matching characters in a first word and a second word (Appellant's specification, paragraph [0121], paragraph [0125] (same character at same position generates higher score), paragraph [0128] (value based on number of matching characters); and if the score calculated for said particular name and the suspect name exceeds a threshold, reporting the match to the user (Appellant's specification paragraph [0023], paragraph [0061], paragraph [0130]; Fig. 4A at 420-435; Fig. 4C at 425).

6. GROUNDS OF REJECTION TO BE REVIEWED

The grounds for appeal are:

(1st) Whether claims 1, 3-5, 7-13, 15-25, 27-29, 31-37 and 39-46 are unpatentable

under 35 U.S.C. Section 102(e) as being anticipated by U.S. Patent 6,963,871 to Hermansen et al (hereinafter “Hermansen”); and

(2nd) Whether claims 14, 38, 47-60, 62-67 are unpatentable under 35 U.S.C. Section 103(a) as obvious over Hermansen (above) in view of U.S. Published Application 2006/0095368 of Stretton (“Stretton”).

7. ARGUMENT

A. First Ground: Claims 1, 3-5, 7-13, 15-25, 27-29, 31-37 and 39-46 rejected under 35 U.S.C. 102(e)

1. General

Under Section 102, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in the prior art reference. As discussed in detail below, the Hermansen reference fails to teach each and every element set forth in Appellant’s claims and therefore fails to establish anticipation of the claimed invention under Section 102.

2. Claims 1, 3, 7-13, 15-25, 27, 31-37 and 39-46

The Examiner’s rejection of Appellant’s independent claims 1 and 25 as follows is representative of the Examiner’s rejection of Appellant’s claims as anticipated by Hermansen:

As per independent claims 1, 25, Hermansen teaches a name searching system with multiple processing options, which automatically selects and uses an appropriate cultural-specific set of algorithms to search for database for names and evaluate their proximity to a query name with multiple processing options (col. 3, lines 53-58). Hermansen teaches the claimed, determining whether a particular name matches any names on a list of names, said particular name comprising one or more words (col. 3, lines 59-3 and col. 4, lines 6-9). Hermansen teaches the claimed, generating codes characterizing the particular name by generating a code for each word of the particular name that is based at least in part on phonetic sounds of the word and on whether characters of the word match a pattern occurring in a proper name in a given natural language (Fig. 1, col. 10, lines 21-25 and lines 40-51). Hermansen teaches the claimed, deriving an initial set of any matching names by comparing the codes of the particular name against corresponding codes for the list of names (Fig. 1, col. 10, lines 34-39). Hermansen teaches the claimed, deriving a final set of any matching names by comparing words of the particular name against words of names in the initial

set (Fig. 2, col. 11, lines 11-16). Hermansen teaches the claimed, deriving a final set includes calculating a score based upon combinations of words of the particular name and words of names in the initial set (Fig. 3, col. 6, lines 48-50). Hermansen teaches the claimed, calculating a score is based, at least in part, upon number of matching characters in respective words (Fig. 2, col. 14, lines 3-14). Hermansen teaches the claimed, displaying any matching names in the final set having a score greater than an established threshold (Fig. 3, col. 7, lines 53-58). Hermansen also teaches the amended claim 25, limitation, a computer having a processor and memory (Fig. 3, lines 26-27 and col. 6, lines 29-36).

(Final Rejection, paragraph 4, pages 2-3)

In the Examiner's first non-final Office Action dated December 29, 2006, the Examiner indicated that dependent claims 6-7, 30-31 and 61-62 included allowable subject matter and would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. In response, Appellant amended its claims to include the claim limitations initially indicated by the Examiner as including allowable subject matter into Appellant's independent claims 1, 25 and 47. However, in response to Appellant's Amendment the Examiner reconsidered the matter and in subsequent Office Actions has rejected Appellant's claimed invention relying on the same Hermansen reference cited in the first non-final Office Action dated December 29, 2006. Appellant respectfully believes that the Examiner's initial analysis was correct as Appellant's claimed invention includes features that are not taught by Hermansen. Although both Appellant's invention and Hermansen's solution compare names, Appellant's claimed invention differs from Hermansen's solution in a number of respects as discussed in detail below.

One particular feature of Appellant's claimed invention which differs from that of Hermansen is the manner in which Appellant's solution calculates a "score" for determining whether or not a given name that is being evaluated matches a name in a target set of names (e.g., names on a watch list, suspect list, or the like). When a given name is received as input, Appellant's claimed invention provides for initially identifying potentially matching names (e.g., from a target set of names) by generating code for words of the name and comparing these codes to codes previously generated for names on the target set of names. Significantly, when potentially matching names are found by through this initial process, Appellant's invention next performs more detailed processing

for calculating a "score" by comparing words of the given name to words of each of the potentially matching names (Appellant's specification, paragraph [0068]). For each of the potentially matching names, every word in one name (e.g., the given input name) is compared to every word in a potentially matching name and a preliminary score is calculated for each word (Appellant's specification, paragraph [108]). More particularly, Appellant's invention calculates this preliminary score for pairs of words based on comparing all characters of the two words (Appellant's specification, paragraph [0121]). Preliminary scores from words of the names that have been compared are then added to generate a final score for a pair of names (Appellant's specification, paragraphs [0110]-[0112]). It should be noted that phonetic codes generated for purposes of identifying preliminarily matching names are not used at this stage in calculation of scores.

To illustrate this by example, consider a comparison of the name "Dina Simpson" with the name "Dino Armani". With Appellant's approach, preliminary scores may be calculated for all combinations of the words of these names as described in paragraphs [0109]-[0111] of Appellant's specification, as follows:

<u>words</u>	<u>score</u>
('DINA', 'DINO')	833.83
('DINA', 'ARMANI')	472.72
('SIMPSON', 'DINA')	464.78
('SIMPSON', 'ARMANI')	437.01

Next, Appellant's invention calculates a final score based on these preliminary scores. First, the highest preliminary score is saved and the two words that generated this score (e.g., "Dina" and "Dino" in the above example) are then eliminated from further consideration for purposes of calculating the final score and the highest remaining score is selected (Appellant's specification, paragraph [0112]). In the above example, the only words remaining are "Armani" and "Simpson" with a preliminary score of 437.01. The final result is calculated as the average of the sum of these two preliminary scores as follows:

Dina => Dino + Simpson => Armani
 $(833.83 + 437.01) / 2 = 635.42$
 Result = 63.542 %.

(Appellant's specification, paragraphs [0113]-[0114]).

As illustrated by this example, Appellant's scoring methodology determines a score for two names by comparing all words (e.g., forename, middle name and surname) of the first name against all words of the second and calculating a preliminary score for each pair of words. Furthermore, Appellant's methodology for scoring two words being compared provides for examining the two words letter by letter (character by character) and calculating a score based upon the number of matching characters in each word and the position within the word at which such matching characters are located (Appellant's specification paragraph [0125], paragraph [0128]). Generally, the highest score is given when the same character is in the same position in both of the words (Appellant's specification, paragraph [0125]); however, if the matching letter is in another nearby position this also contributes (although to a lesser degree) to the score calculated for the pair of words (Appellant's specification, paragraph [0126]). The number of matching characters and the position at which matching characters are found contributes to the final score calculated for the words (Appellant's specification, paragraph [0126]). These features are specifically described in Appellant's claims. For example, Appellant's claim 1 includes the following claim limitations:

deriving a final set of any matching names by comparing words of the particular name against words of names in the initial set; wherein deriving the final set includes calculating a score based upon combinations of words of the particular name and words of names in the initial set; and wherein calculating a score is based, at least in part, upon number of matching characters in respective words; and displaying any matching names in the final set having a score greater than an established threshold.

(Appellant's claim 1, emphasis added)

The Examiner references Hermansen at col. 11, lines 11-16 and at col. 6, lines 48-50 for the teaching of deriving a final set of matching names by comparing words of the particular name (i.e., input name) against words of names in the initial set (i.e., name from list). However, when one reviews the referenced teachings of Hermansen, one finds that Hermansen does not, in fact, include equivalent teachings. First, at col. 11, lines 11-16 of Hermansen states as follows:

For example, the inventors have found that names of Arabic and Chinese origin are better processed using custom regularization algorithms rather than by the generalized IPA approach, since names acknowledged as similar in these cultures are often quite distinct phonetically.

(Hermansen, col. 11, lines 11-16)

As illustrated above, the referenced portion of Hermansen makes no mention of comparing words of each name as provided in Appellant's specification and claims. The other portion of Hermansen referenced by the Examiner for these teachings similarly does not, in fact, appear to provide any analogous teachings as col. 6, lines 48-50 provides:

In the preferred embodiment, linguistic information aggregator 308 generates scores from four data sources.

(Hermansen, col. 6, lines 48-50, emphasis added)

Thus, while Hermansen's system appears to calculate a score from four data sources in some fashion, it does not include the specific teachings of Appellant's claimed invention of comparing every word in a given input name to every word in a potential matching name in calculating the score for the names. Moreover Hermansen's linguistic information aggregator is a component of a linguistically information decision (LID) processor 304 which obtains information for purposes of determining whether an input name belongs to a particular ethnicity such as Hispanic or Arabic (Hermansen, col. 6, lines 43-48; Fig. 4 at 304, 308, 310). In doing so, Hermansen's solution obtains data from four data sources referred to as "HF", "TAQ", "N-Gram" and Morpho" as shown at 106 of Fig. 4 of Hermansen. These data sources, are in turn illustrated at Fig. 5 of Hermansen as four different database tables: "HF" containing high frequency names, "TAQ" comprising a list of titles, affixes, and qualifiers commonly used in names of various cultures (Hermansen, column), "N-Gram" representing strings of letters that occur with statistical significance in names with a given cultural affinity; and "Morpho" which includes morphological elements such as "-ovich" which suggest a particular cultural affinity (Hermansen, col. 6, line 50 to col. 7, line 12). Thus, although Hermansen's solution calculates a score, it does so for the purpose of determining

whether an input name belongs to a particular ethnicity and based on very different input data. It does not calculate the score by comparing words of two names as provided in Appellant's specification and claims.

Furthermore, Appellant's claimed invention further provides that the score is calculated based on the number of matching characters in words that are being scored. The Examiner references Hermansen at col. 14, lines 3-14 for the corresponding teachings; however here Hermansen states the following:

The name checking tool incorporates information regarding variations in spelling, discrepancy in the number of name segments (amount of information included), exclusion of expected information, and positional information to establish a name score, which indicates the probability that the two names represent the same individual. The tool is controlled by a set of configurable parameters. The tool also manages and produces an ordered or unordered list of candidate names with the highest probability of representing the same named person, based on the developer defined criteria for establishing a set of results.

(Hermansen, col. 14, lines 3-14, emphasis added)

As illustrated above, Hermansen's name checking tool may be configured by a developer to consider several factors in calculating a score, including number of name segments and spelling variations. However, Hermansen does not include the specific teaching of calculating a score based on the number of matching characters in each word of the names being compared as provided in Appellant's specification and claims. Appellant's review of the balance of the Hermansen reference finds that Hermansen's scoring methodology is only described in very general terms as Hermansen's preferred approach is to allow for developers to customize how scores are calculated to meet their particular requirements. For example, Hermansen describes at col. 5, lines 3-10 that the solution includes library routines for producing a score comparing a query name and database name "based on a variety of user-adjustable parameters" so as to permit tuning of the search methodologies for specific applications (see also col. 14, lines 3-14 of Hermansen which is quoted above).

Hermansen's solution also differs from that of Appellant in that it provides different search algorithms for different languages and/or cultures. Hermansen's system provides for selecting and using a "cultural-specific set of algorithms" to search for

names where the processing differs based on culture, ethnicity, distribution and language (Hermansen, col. 3, lines 52-63). In other words, based on a classifying the likely cultural origin of a given name (e.g., Chinese, Arabic, Hispanic or Russian), Hermansen's system selects a different processing algorithm to perform a search for the given name (Hermansen, col. 5 line 65 - col. 6 line 7). For example, if a given name is classified as a Hispanic name, Hermansen's solution then performs the search using specific Hispanic name processing algorithms (Hermansen, col. 8, lines 36-42). This is not Appellant's approach. Although Appellant's solution does consider language variations in identifying potential matches, once potentially matching names have been identified Appellant's solution provides a unified scoring methodology which calculates a score (representing the likelihood that two names match) based on examining particular words and characters of the names that are being compared. This scoring approach in which Appellant's invention examines each word of two potentially matching names on a character by character basis improves accuracy and reduces the number of "false positives" that are reported by the name checking solution.

3. Claims 4-5 and 28-29

Further distinctions between Appellant's invention and that of Hermansen are found in Appellant's dependent claims. For example, Appellant's dependent claims 4-5 and 28-29 include specific limitations of determining whether characters are at the same position in two words being compared when calculating a score comparing the two words. Appellant's claim 4, for instance, includes the following claim limitations:

wherein said step of calculating a score includes determining whether a character at a certain position in a first word is at the certain position in a second word.

(Appellant's claim 4, emphasis added)

As discussed above, Appellant's scoring methodology involves comparing characters of each word of two names being compared. This includes examining characters at corresponding positions in the two words to determine if the same character is at the same position (Appellant's specification, paragraph [0126]). If the same character is not found in the same position in two words being compared, Appellant's scoring methodology also looks for transpositions (Appellant's specification, paragraph

[0126]). More particularly, Appellant's solution looks to see if the matching character is in another nearby position in the words being compared. If the matching character is found in a nearby position, this will contribute to the score that is calculated, although in a lesser amount than if the matching character is in the same position in two words being compared. This is also described in Appellant's claims. Appellant's claim 5, for instance, includes the following claim limitations

The method of claim 4, wherein said step of calculating a score includes determining whether a character at the certain position in the first word is at a different position in the second word.

(Appellant's claim 5)

The Examiner references Hermansen at Fig. 3 and at col. 9, lines 22-25 and lines 30-33 for the corresponding teachings. However, the referenced teachings of Hermansen describe a segment position identifier of a Hispanic name preprocessor which identifies the relative position of the surname and given name stems of a name as follows:

The Hispanic segment positioner in Block 708 operates to move any high frequency surname found in the given name field into the surname field. The name is then formatted by an Hispanic name formatter in Block 710 to generate additional name formats in case the record has more than two surname stems. Next, the name is processed by a segment position identifier in Block 712 to identify the relative position of each of the surname and given name stems. Hispanic names generally contain more than one stem in the given name and surname. In a given name, the leftmost name stem generally indicates gender; in a surname, the leftmost stem is the family name and the other stems are differentiators. Therefore, it is important to identify names that are out of position so that this may be corrected and their relevance appropriately evaluated during the search.

(Hermansen col. 9, lines 17-32, emphasis added)

As illustrated above, Hermansen's segment position identifier evaluates the positioning of segments (e.g., surname stems) of a given name in order to determine name stems which may be out of position. This is not comparable to Appellant's claimed invention which provides for calculating a score based on positioning of each character of each word of two names being compared.

4. Conclusion

As described above in detail, Hermansen's system does not calculate a score for two names being compared based upon comparing each word of the two names nor does Hermansen examine each character of two words being compared to determine the number of matching characters in the words and the position within the words at which such characters are found. Therefore, as the limitations of Appellant's claims 1, 3-5, 7-13, 15-25, 27-29, 31-37 and 39-46 are not disclosed or taught by Hermansen, it is respectfully submitted that the claims distinguish over this reference and the Examiner's rejection of these claims under Section 102 should not be sustained.

B. Second Ground: Claims 14, 38, 47-60, 62-67 rejected under 35 U.S.C. 103(a)

1. General

Under Section 103(a), a patent may not be obtained if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. To establish a prima facie case of obviousness under this section, the Examiner must establish: (1) that there is some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings, (2) that there is a reasonable expectation of success, and (3) that the prior art reference (or references when combined) must teach or suggest all the claim limitations. (See e.g., MPEP 2142). The reference(s) cited by the Examiner fail to meet these conditions.

2. Claims 14, 38, 47-60, 62-67

Claims 14, 38, 47-60, 62-67 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hermansen (above) in view of U.S. Published Application 2006/0095368 of Stretton ("Stretton"). As to these claims, the Examiner acknowledges that Hermansen fails to disclose a suspect list or watch list of suspect individuals. The Examiner therefore adds Stretton for these teachings.

Appellant's claims are believed to be allowable for at least the reasons cited above (in Appellant's **First Ground** of appeal, which is incorporated by reference herein)

pertaining to the deficiencies of Hermansen as to Appellant's invention. Stretton does not cure any of these deficiencies. Although Stretton discusses watch lists, it does so in the context of a solution that detects structuring of financial transactions by gathering patterns of transfer activity at a recipient account and detecting aggregation among the patterns of transfer activity. Stretton's solution is focused on patterns of financial activity and does not provide any teaching of determining whether a given name matches a name on such watch list as provided in Appellant's specification and claims. In particular, Stretton provides no teaching of calculating a score for two names being compared based upon comparing each word of the two names, nor does Stretton examine each character of words being compared to determine the number of matching characters in the words and the position within the words at which such matching characters are found. Accordingly, Stretton does not cure the deficiencies of the Hermansen reference as to Appellant's invention.

3. Conclusion

As discussed in detail above, neither Hermansen nor Stretton provide any teaching comparable to Appellant's scoring methodology which calculates a score for two names being compared based upon comparing each word of the two names. Moreover, neither reference provides any teaching of examining each character of each word of the names being compared and calculating a score based on the number of matching characters and the position in the respective words at which the matching characters are found. Therefore, as the two references, even when combined, do not teach or suggest all the limitations of Appellant's claims it is respectfully submitted that Appellant's claimed invention is distinguishable over the prior art and that the Examiner's rejection under Section 103 should not be sustained.

C. Conclusion

The present invention greatly improves the efficiency of determining whether a given name corresponds to a name on a watch list, suspect list, or other target list of names. It is respectfully submitted that the present invention, as set forth in the pending claims, sets forth a patentable advance over the art.

In view of the above, it is respectfully submitted that the Examiner's rejection of Appellant's claims under 35 U.S.C. Section 102 and 35 U.S.C. Section 103 should not be sustained. If needed, Appellant's undersigned attorney can be reached at 925 465 0361. For the fee due for this Appeal Brief, please refer to the attached Fee Transmittal Sheet. This Appeal Brief is submitted electronically in support of Appellant's Appeal.

Respectfully submitted,

Date: March 11, 2008

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8. CLAIMS APPENDIX

1. A method for determining whether a particular name matches any names on a list of names, said particular name comprising one or more words, the method comprising:

generating codes characterizing the particular name by generating a code for each word of the particular name that is based at least in part on phonetic sounds of the word and on whether characters of the word match a pattern occurring in a proper name in a given natural language;

deriving an initial set of any matching names by comparing the codes of the particular name against corresponding codes for the list of names;

deriving a final set of any matching names by comparing words of the particular name against words of names in the initial set; wherein deriving the final set includes calculating a score based upon combinations of words of the particular name and words of names in the initial set; and wherein calculating a score is based, at least in part, upon number of matching characters in respective words; and

displaying any matching names in the final set having a score greater than an established threshold.

2. (Canceled)

3. The method of claim 1, wherein said step of calculating a score is based, at least in part, on how well characters correlate between respective words.

4. The method of claim 3, wherein said step of calculating a score includes determining whether a character at a certain position in a first word is at the certain position in a second word.

5. The method of claim 4, wherein said step of calculating a score includes determining whether a character at the certain position in the first word is at a different position in the second word.

6. (Canceled)

7. The method of claim 1, wherein said step of calculating a score is based, at least in part, upon a position in a word at which a matching character is located.

8. The method of claim 1, wherein said step of calculating a score includes calculating preliminary scores based on pairing each word of the particular name with each word of a name in the initial set.

9. The method of claim 8, wherein said step of calculating a score further comprises calculating an average of at least some of the preliminary scores.

10. The method of claim 1, wherein said step of deriving a final set further comprises determining whether the score exceeds an established threshold.

11. The method of claim 10, wherein said established threshold is established by a user.

12. The method of claim 1, wherein said step of deriving a final set is based, at least in part, on length of words of the particular name and words of names in the initial set.

13. The method of claim 1, wherein said step of deriving an initial set includes determining if at least one code generated for the particular name matches a code for a name on the list of names.

14. The method of claim 1, wherein the list of names comprises a watch list.

15. The method of claim 1, wherein said step of generating codes includes parsing the particular name into words.

16. The method of claim 1, wherein said step of generating codes includes removing superfluous characters.

17. The method of claim 1, wherein said step of generating codes includes equating like-sounding characters.

18. The method of claim 1, wherein said step of generating codes includes generating a single code value based on a plurality of characters.

19. The method of claim 1, wherein said step of generating codes includes examining a character in a word in context of other characters in the word.

20. The method of claim 1, wherein said step of generating codes includes generating two codes for each word of the particular name, with each of the two codes representing a different pronunciation.

21. The method of claim 1, wherein said step of generating codes includes evaluating a plurality of characters to identify particular patterns of characters.

22. The method of claim 21, wherein said particular patterns comprise patterns of characters common in particular natural languages.

23. A computer-readable medium having processor-executable instructions for performing the method of claim 1.

24. A downloadable set of processor-executable instructions for performing the method of claim 1.

25. A system for determining whether a particular name matches any names on a list of names, said particular name comprising one or more words, the system

comprising:

- a computer having a processor and memory;
- a code module for generating codes characterizing the particular name by generating a code for each word of the particular name that is based at least in part on phonetic sounds of the word and on whether characters of the word match a pattern occurring in a proper name in a given natural language;
- a pre-match module for deriving an initial set of any matching names by comparing the codes of the particular name against corresponding codes for the list of names;
- a score module for deriving a final set of any matching names by comparing words of the particular name against words of names in the initial set; wherein said score module calculates a score based upon combinations of words of the particular name and words of names in the initial set; and wherein said score module calculates a score based, at least in part, upon number of matching characters in respective words; and
- a module for displaying any matching names in the final set having a score above an established threshold.

26. (Canceled)

27. The system of claim 25, wherein said score module calculates a score based, at least in part, on how well characters correlate between respective words.

28. The system of claim 27, wherein said score module determines whether a character at a certain position in a first word is at the certain position in a second word.

29. The system of claim 28, wherein said score module determines whether a character at the certain position in the first word is at a different position in the second word.

30. (Canceled)

31. The system of claim 25, wherein said score module calculates a score based, at least in part, upon a position in a word at which a matching character is located.

32. The system of claim 25, wherein said score module calculates preliminary scores based on pairing each word of the particular name with each word of a name in the initial set.

33. The system of claim 32, wherein said score module calculates a score by averaging at least some of the preliminary scores.

34. The system of claim 25, wherein said score module determines whether the score exceeds an established threshold.

35. The system of claim 34, wherein said established threshold is established by a user.

36. The system of claim 25, wherein said score module derives a final set based, at least in part, on length of words of the particular name and words of names in the initial set.

37. The system of claim 25, wherein said pre-match module determines if at least one code generated for the particular name matches a code for a name on the list of names.

38. The system of claim 25, wherein the list of names comprises a watch list.

39. The system of claim 25, wherein said code module parses the particular name into words.

40. The system of claim 25, wherein said code module removes superfluous characters.

41. The system of claim 25, wherein said code module equates like-sounding characters.

42. The system of claim 25, wherein said code module generates a single value for inclusion in a code based on a plurality of characters.

43. The system of claim 25, wherein said code module examines a character in a word in context of other characters in the word.

44. The system of claim 25, wherein said code module generates two codes for each word of the particular name, with each of the two codes representing a different pronunciation.

45. The system of claim 25, wherein said code module evaluates a plurality of characters of a word to identify particular patterns of characters.

46. The system of claim 45, wherein said particular patterns comprise patterns of characters common in particular natural languages.

47. A method for assisting a user in determining whether a particular name matches any suspect name on a suspect list, said particular name having one or more words, the method comprising:

generating a code for each word of said particular name based at least in part on phonetic sound and on patterns of characters occurring in names in natural languages;

identifying a set of potentially matching names by comparing codes generated for said particular name with codes generated for suspect names on the suspect list;

for each suspect name in the set of potentially matching names, calculating a score based, at least in part, upon correlation of characters between words of said particular name and words of the suspect name; wherein calculation of the score is based, at least in part, upon number of matching characters in a first word and a second word;

and

if the score calculated for said particular name and the suspect name exceeds a threshold, reporting the match to the user.

48. The method of claim 47, wherein the suspect list comprises a watch list.

49. The method of claim 47, wherein said step of generating a code includes parsing said particular name into words.

50. The method of claim 47, wherein said step of generating a code includes removing superfluous characters.

51. The method of claim 47, wherein said step of generating a code includes equating like-sounding characters.

52. The method of claim 47, wherein said step of generating a code includes generating a single code value based on a plurality of characters.

53. The method of claim 47, wherein said step of generating a code includes examining a character in a word in context of other characters in the word.

54. The method of claim 47, wherein said step of generating a code includes generating a plurality of codes for a word having more than one common sound.

55. The method of claim 47, wherein said step of generating a code includes evaluating a plurality of characters to identify particular patterns of characters.

56. The method of claim 55, wherein said particular patterns comprise patterns of characters common in particular natural languages.

57. The method of claim 47, wherein said step of calculating a score includes

calculating preliminary scores based on pairing each word of said particular name with each word of the suspect name.

58. The method of claim 57, wherein said step of calculating a score includes calculating an average of at least some of the preliminary scores.

59. The method of claim 47, wherein said step of calculating a score includes comparing a character at a certain position in a first word with a character at the certain position in a second word.

60. The method of claim 59, wherein said step of calculating a score further comprises determining whether the character at the certain position of the first word is at a different position in the second word.

61. (Canceled)

62. The method of claim 47, wherein said step of calculating a score is based, at least in part, upon a position in a word at which a matching character is located.

63. The method of claim 47, wherein said step of calculating a score is based, at least in part, on length of words of said particular name and the suspect name.

64. The method of claim 47, wherein said step of calculating a score is based, at least in part, on number of words of said particular name and the suspect name.

65. The method of claim 47, wherein said step of reporting the match includes reporting the score calculated for said particular name and the suspect name.

66. A computer-readable medium having processor-executable instructions for performing the method of claim 47.

67. A downloadable set of processor-executable instructions for performing the method of claim 47.

9. EVIDENCE APPENDIX

This Appeal Brief is not accompanied by an evidence submission under §§ 1.130, 1.131, or 1.132.

10. RELATED PROCEEDINGS APPENDIX

Pursuant to Appellant's statement under Section 2, this Appeal Brief is not accompanied by any copies of decisions.